



12EK6

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SHARP-CUTOFF PENTODE

7-PIN MINIATURE TYPE

*For use in automobile radio receivers operating directly
from 12-volt storage batteries*

GENERAL DATA

Electrical:

Heater, for Unipotential Cathode:

Voltage range. 10 to 15.9 dc volts

This voltage range is on an absolute basis. For longest life, it is recommended that the heater be operated within the voltage range of 11 to 14 volts.

Current (Approx.)

at 12.6 volts. 0.19 amp

Direct Interelectrode Capacitances:⁰

Grid No.1 to plate 0.032 max. $\mu\mu\text{f}$

Grid No.1 to cathode, grid No.3 & internal shield, grid No.2, and heater 10 $\mu\mu\text{f}$

Plate to cathode, grid No.3 & internal shield, grid No.2, and heater. 5.5 $\mu\mu\text{f}$

Characteristics, Class A₁ Amplifier:

Heater Voltage 12.6 volts

Plate Voltage 12.6 volts

Grid No.3. Connected to cathode at socket

Grid-No.2 Voltage 12.6 volts

Grid-No.1 Supply Voltage 0 volts

Grid-No.1 Resistor (Bypassed). 2.2 megohms

Plate Resistance (Approx.) 40000 ohms

Transconductance 4200 μmhos

Plate Current 4.4 ma

Grid-No.2 Current 2 ma

Grid-No.1 Voltage (Approx.) for plate $\mu\text{a} = 10$ -4 volts

Mechanical:

Operating Position Any

Maximum Overall Length 2-1/8"

Maximum Seated Length. 1-7/8"

Length, Base Seat to Bulb Top (Excluding tip) . 1-1/2" $\pm$ 3/32"

Diameter 0.650" to 0.750"

Dimensional Outline. See General Section

Bulb T5-1/2

Base Small-Button Miniature 7-Pin (JETEC No.E7-1)

Basing Designation for BOTTOM VIEW 7BK

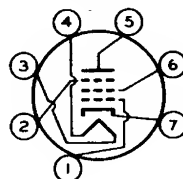
Pin 1-Grid No.1

Pin 2-Grid No.3

Internal

Shield

Pin 3-Heater



Pin 4-Heater

Pin 5-Plate

Pin 6-Grid No.2

Pin 7-Cathode

⁰: See next page.

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AMPLIFIER — Class A₁

Maximum Ratings, Design-Center Values:

PLATE VOLTAGE.	16 max.	volts
GRID-No.3 (SUPPRESSOR-GRID) VOLTAGE.	0 max.	volts
GRID-No.2 (SCREEN-GRID) VOLTAGE.	16 max.	volts
GRID-No.1 (CONTROL-GRID) VOLTAGE:		
Positive-bias value.	0 max.	volts
PEAK HEATER-CATHODE VOLTAGE:		
Heater negative with respect to cathode.	16 max.	volts
Heater positive with respect to cathode.	16 max.	volts

Maximum Circuit Values:

Grid-No.1-Circuit Resistance	10 max.	megohms
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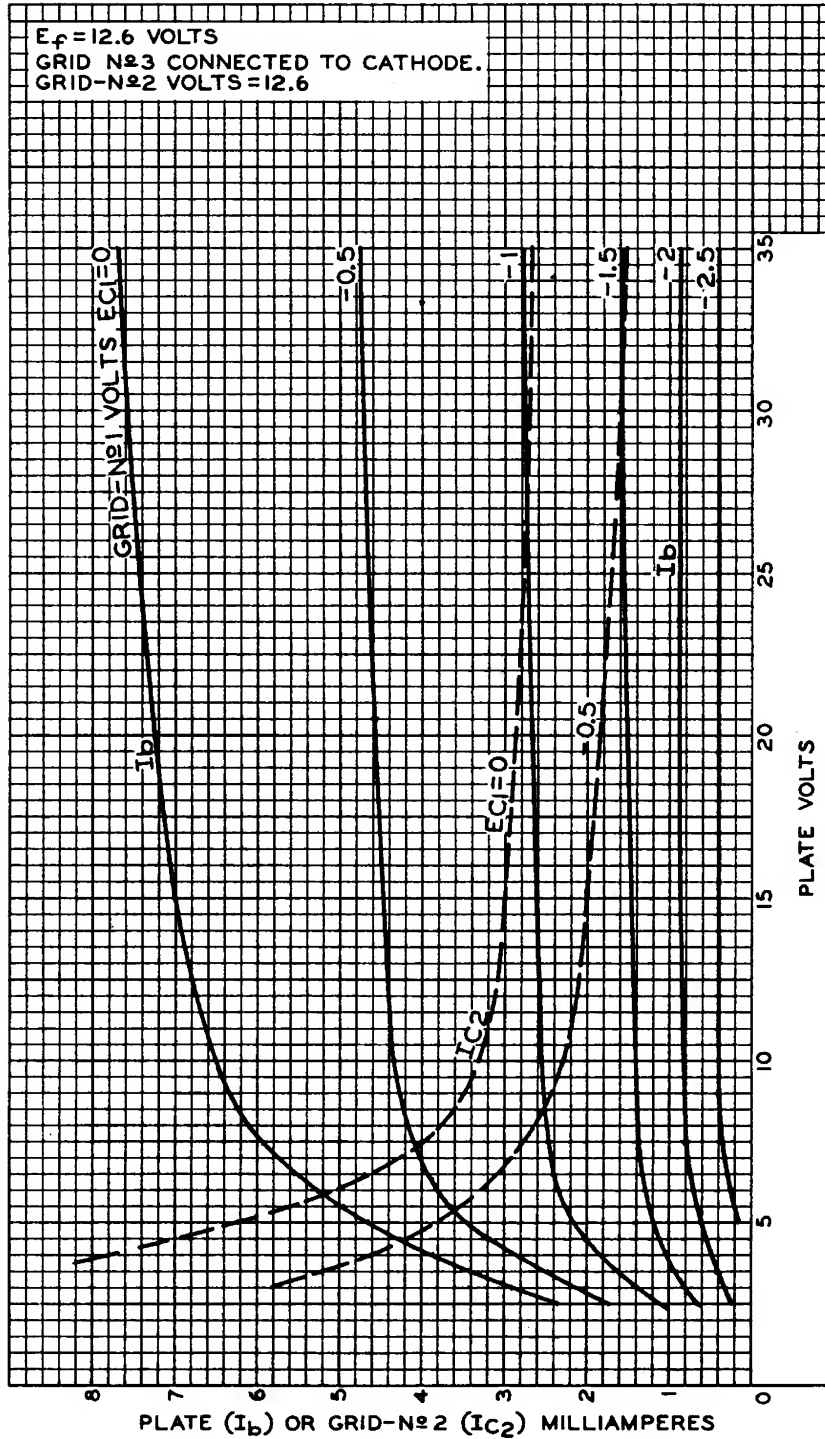
° Without external shield.



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AVERAGE CHARACTERISTICS



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